

AL

Publication Date:
20 July 1995

XP-002252565

AN - 1996-086109 [09]

AP - SU19884432987 19880415

CPY - NUCL-R

DC - V05

FS - EPI

IC - H01J1/30 ; H01J3/02

IN - KORENEV S A

MC - V05-F05A7A V05-F08D5

PA - (NUCL-R) NUCLEAR RES INST

PN - SU1545826 A1 19950720 DW199609 H01J1/30 004pp

PR - SU19884432987 19880415

XIC - H01J-001/30 ; H01J-003/02

XP - N1996-072267

AB - SU1545826 Source comprises the vacuum chamber (1), high voltage bushing insulator (2), cathode current lead (3), current conductor (4), cathode (5), dielectric plate (6), anode (7), pulsed voltage generator (8), plasma flare (9) and the electronic beam (10). The cathode unit current terminal is arranged on the dielectric plate (6) reverse and side surfaces. The anode (7) is placed on the dielectric plate (6) in the same plane as the cathode. The cathode (5), anode (7) and the dielectric plate (6) surfaces are made with a lateral profile corresponding to the electronic beam profile. When the voltage pulse is fed to the diode from the generator (8) cathode plasma is formed due to the explosive effects. The formed cathode plasma propagates towards the anode (7) across the dielectric plate (6) surface. Until the cathode plasma reaches the anode (7) the electron beam current is directed by the electric field.

- USE/ADVANTAGE - Electron pulsed source can be used in accelerator technology and in electronic devices for surface treatment of elements. Its functional scope is widened by obtaining profiled electronic beams. Bul. 20/20.7.95(Dwg.1/4)

IW - ELECTRON PULSE SOURCE VACUUM CHAMBER HIGH VOLTAGE BUSHING INSULATE
CATHODE UNIT CONSIST CATHODE CURRENT TERMINAL PLACE DIELECTRIC PLATE
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NC - 001

OPD - 1988-04-15

ORD - 1995-07-20

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TI - Electron pulse source - has vacuum chamber, high voltage bushing insulator, cathode unit consisting of cathode and current terminal placed on dielectric plate and anode